

## REMARKS

Consideration and allowance of the above-identified application are respectfully requested.

New claim 32 finds support throughout the original specification, including, for example, page 3, line 21 to page 4, line 9, the Examples and testing data. No new matter is introduced by claim 32; entry and allowance of claim 32 are requested.

Claims 9, 10, 14, 18-20 and 30-31 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the applicants, at the time the application was filed, had possession of the claimed invention. Specifically, with respect to claims 9, 10, 14 and 18-20, the Examiner asserts that specification does not support the language “at least one unreacted polyalkene derived from C<sub>2</sub>- to C<sub>20</sub>-alkenes.”

The Examiner states that the

“only recitation regarding unreacted polyalkene is in the examples. In these examples, applicant uses PIB. There is no indication that applicant contemplated adding any other unreacted polyalkenes to the formulations.”

Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner is misreading the teachings of the specification and specifically, the Examples.

One of ordinary skill in the art would recognize that the reaction described in the Examples between PIB-cresols and propylene oxide would produce a PIB-cresol-polypropylene, which is an alkyl-substituted aryl polyalkoxylate, with a certain quantity of unreacted PIB remaining in the reaction product. As the Examiner points out in the rejection below based on the Stayner reference at col. 3, lines 49-71, the phenol alkylation reaction process can have unreacted polyalkenes present in the reaction mixture, which in the Stayner reference is partially removed by heating under reduced pressure. (See col. 3, lines 69-71.)

In an analogous fashion, the present formulation is produced in such a manner as to have unreacted polyalkenes present after the alkylation reaction.

Withdrawal of this § 112, first paragraph, rejection is in order, and requested.

With respect to claims 30-31, the Examiner asserts that the specification does not support a number average molecular weight of “about 208” for the PIB-cresol moiety. Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner states that “[i]t is clear from reading the specification that R has a minimum molecular weight of about 200.” This reading of the specification is incorrect and completely and improperly disregards the teaching of, at least, the paragraph beginning on page 3, line 6 of the specification. The specification clearly teaches that R is derived from C<sub>2</sub> to C<sub>20</sub> alkenes. Additionally, R is further described as “preferably a polybutyl or polyisobutyl radical derived from butylene or isobutylene” and “preferably having a number average molecular weight (MN) of from 200 to 2500” page 3, lines 15-17 (emphasis added). To state that “R has a minimum molecular weight of about 200” is clearly incorrect, is based on a reading of the specification which looks only to the preferred embodiments, and is not reading the claims in light of the whole specification.

The present claims are not limited to the formulation presented in Example B.

Withdrawal of the rejection of claims 9, 10, 14, 18-20 and 30-31 under § 112, first paragraph, is in order and requested.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stayner (U.S. Patent No. 2,786,745.) Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner states that cresol and phenol are structurally similar and that it would have been reasonable to expect the two compounds to function in a similar manner. Applicants submit that the addition of the methyl group to the phenol structure would not have been an obvious variation from the alkylated phenol moieties of Stayner. Stayner process involves alkylating phenols with an olefin compound, preferably where the olefin compound contains from 10 to 20 carbon atoms, and preferably with a phenol ring

Appl. No. 10/046,823  
Amendment dated November 9, 2005  
Reply to Office Action dated August 9, 2005

substituent containing at least 1.5 olefin compounds per phenol. (See col. 3, lines 7-13; col. 4, lines 25-31.)

In contrast, the present claims 9 and 10 are directed, respectively, to “cresol” and “hydrocarbon-substituted cresol” containing formulations. The claimed formulations have at least one, and in the case of the “hydrocarbon-substituted cresol”, two, additional substituent(s) on the phenol ring structure over that used by Stayner. In light of the teachings of Stayner, the presently claimed formulations having at least one additional ring substituent present per phenol moiety would not have been obvious.

It was not expected to one of skill in the art that the structural change between a phenol and a cresol based formulation would result in such a dramatic change in performance in reduction of intake valve deposits and sticking of valves as seen with the presently claimed formulations.

Withdrawal of this rejection is in order and requested.

Claims 20-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stayner ‘745 and EP 827999. Applicants respectfully traverse this rejection for at least the following reasons.

As set forth above, Stayner does not render obvious the present claims, and the addition of EP ‘999 does not overcome the deficiencies of Stayner. Again, the presently claimed formulations provide a unexpected decrease in intake valve deposits and frequency of valve sticking over the known fuel compositions such as those disclosed in either Stayner or EP ‘999.

Withdrawal of this rejection is in order and requested.

## **CONCLUSION**

In view of the foregoing remarks, Applicants respectfully submit that presently pending claims 9, 10, 14, 18-20 and 30-32 are in condition for allowance. Applicants respectfully request reconsideration of the present application and a timely allowance of the pending claims.

Should the Examiner deem that any further action by Applicants' undersigned

Appl. No. 10/046,823  
Amendment dated November 9, 2005  
Reply to Office Action dated August 9, 2005

representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

Except for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or to credit any overpayment to Deposit Account No. 06-1135 under Order Number 7391/72568. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,

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